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ABSTRACT

The anchor of successful writing-across-the-curriculum programs is an organized nucleus of features called the four Ps: planning, proposing, preparing, and prototyping. Planning requires organization and connections among the mechanisms of designing and implementing both program activities and evaluation designs. It should begin at least two years before the program begins and then continue throughout the life of the program. Planning also requires evaluation designs that are internal as well as external, formative as well as summative. Proposing, like planning, is recursive because, after the initial proposal is submitted to internal and external sources of funding, the institution finds itself proposing still more ways to extend, expand, or continue what was begun. Preparing requires orienting all people at the institution for the program before, during, and after implementation. The nature of the preparation for faculty is largely dependent on the project administration's ability to look to and beyond English faculty in making writing across the curriculum happen. The final cycle, prototyping, sets a program apart from others. It is what constitutes model programs and insures their long-term maintenance. There are representative prototypes of parts if not of whole programs that have influenced program development elsewhere. If any aspect of writing across the curriculum is replicable, the value of such a program has far-reaching effects beyond the interest of its home institution. (HOD)

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PLANNING, PROPOSING, PREPARING, AND PROTOTYPING: THE FOUR P'S OF WRITING ACROSS THE CURRICULUM

PROGRAMS THAT LAST

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PLANNING, PROPOSING, PREPARING, AND PROTOTYPING:
THE FOUR P'S OF WRITING ACROSS THE CURRICULUM
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PROLOGUE

About five years ago, some of us at my institution, an undergraduate and graduate school of business administration, began to investigate ways which would help establish Robert Morris College as an institution of higher learning responsive to concerns of literacy, intellectual growth, and academic excellence. Our concerns coupled with the available research in language and rhetorical studies as well as in cognitive theory and program evaluation prompted us to look further. Writing across the curriculum programs began to emerge as a solution to some of those problems we were grappling with on our campus, so we began to investigate the assumptions and research which were at the root of these programs.

It soon became evident that writing across the curriculum was an intelligent way for us to go. However, to do writing across the curriculum well required us to imitate exemplary aspects of successful programs and avoid the mistakes that led others to their lack-lustre presence or eventual demise. Most importantly, we needed to tie into the renowned research in writing that was the driving force behind successful writing-across-the-curriculum programs.

Given our proximity to Carnegie-Mellon University and the University's well-known research in rhetoric, psychology, and writing education, I approached Richard E. Young, then Head of the Department of English, to see if we could establish a collaborative arrangement between our two institutions.

This arrangement would allow Robert Morris College, a predominantly teaching institution, to provide the laboratory environment--the practical program that would feed into the continuing research of our consulting institutional partner, Carnegie-Mellon University.

Richard Young and other faculty at Carnegie-Mellon worked with us from the inception of the proposal for funding to continuing the program evaluation and other program activities still going on today. Our partnership has become one in which, as Young had predicted, "the benefits are likely to flow both ways." The Buhl Foundation in Pittsburgh, Pennsylvania judged our program worthy of both initial and supplementary assistance grants; the Foundation's purpose was "to establish a writing-across-the-business-disciplines program at Robert Morris College (WABD)."

Today, since the grant has expired 31 December 1985, we are preparing our second cycle of program implementation and evaluation funded internally by Robert Morris College. We are also planning more ways to give strength and growth to an enterprise that has managed to please students, faculty, and administrators at both institutions; to a program that has already begun to help us provide intelligent solutions to problems of literacy, cognitive growth, and linguistic maturity for our students.

And we have managed one other unanticipated benefit in the process: Twenty of our faculty across all our academic departments have focused on a common pedagogical issue--putting their best educated efforts into improving the curriculum, developing sets of write-to-learn techniques, and making contributions to the teaching of their respective disciplines. A

recent team of four evaluators from the National Council of Writing Program Administrators said in their progress report:

> In concept and execution, we find WABD to be an excellent program. . . . Particularly noteworthy in the WABD design is the decision to introduce write-to-learn strategies as part of a larger review of course goals and structure by teachers in different disciplines. This approach greatly increases the chance that write-to-learn approaches will be fully integrated into improved courses rather than used as isolated teaching techniques. The result seems to be not only one of the few successful writing across the curriculum programs we know but also one of the best faculty development programs we have seen. . . (K. Davis, H. Crosby, R. Gebhardt, M. Arkin, December 1985).

On the heels of this generous evaluation and after five years of doing writing across the curriculum, I have drawn some conclusions which are indeed worth sharing with those who might also be thinking about, doing, or extending programs of their own.

INTRODUCTION

Effective writing-across-the-curriculum programs that last more than a few years are relatively sparse. Yet, right now almost ten years after this educational movement has at one time or another harbored in over 500 American ports of higher education, there are many tales about the enthusiasm, if not evangelism, connected with writing in all disciplines in our schools as well as in our colleges and universities (Griffin, 1982). My purpose here however is not to describe the psychological state of writing-across-the-curriculum programs but rather to describe the substantive features that give some programs prominence as well as permanence in their institutions, in their communities, in the nation, and even across nations.

Those of us interested in establishing lasting and effective writing-across-the-curriculum programs of our own need to examine healthy programs that have not only survived the

storms of American higher education but have indeed continued to thrive. The anchor of these successful programs is an organized nucleus of features which I call the four P's of writing across the curriculum: planning, proposing, preparing, and prototyping. This essay includes some strategies helpful to those brave pioneers who accept the responsibility of creating , maintaining or extending writing-across-the-curriculum programs that last.

PLANNING

The first of these cycles, planning, requires organization and connections among the mechanisms of designing and implementing both program activities and evaluation designs. In real time planning begins at least two years before any signs of the program's life begin on campus. Planning then continues not only throughout the life of the program but keeps recurring for the duration. Planning itself is driven by the substance of writing-across-the-curriculum programs: activities for teachers, students, administrators. It requires evaluation designs that are internal as well as external, formative as well as summative.

The program activities usually derive from theories of writing that have been well documented in writing education research. Some theoretical models repeatedly used and worth mentioning are James Britton's concepts of writing and learning (1970, 1975, 1980), Richard Young's concepts of heuristic procedures for invention (Young, Becker, & Pike, 1970), Jerome Bruner's system of information processing (1964), Flower & Hayes' investigations of writing as a problem-solving activity (1980), ard Janet Emig's idea of writing as a mode of learning

(1977)--to name a few. All these theorists in one way or another advance a common principle: writing is an indispensable aid to more precise and complex thinking required in all disciplines. Moreover, each discipline can provide its professionals with defined sets of strategies to arrive at more precise thinking about the subject matter of that discipline (Young, Becker, & Pike, 1970).

Thus, writing to learn, distinguished from writing to communicate, is an effective student learning aid as well as a powerful pedagogical principle. Teachers in every discipline can, from the perspective of research in writing, determine and develop appropriate write-to-learn strategies to help their students achieve particular course goals of their subject areas more effectively (R. E. Young, 1985). English teachers, even teachers of composition, do not have a corner on writing to learn in all disciplines. Nor do they by themselves have the necessary knowledge and skills to determine which write-to-learn strategies are useful for disciplines beyond their own.

Only when administrators and teachers of writing-across-the-curriculum programs determine and discover their theoretical roots will the activities necessary to conduct a college-wide program begin to emerge. And perhaps it is best to mention here that seminars for faculty in all disciplines are primary activities in successful programs. These seminars are best when researchers in writing and teachers in other disciplines come together to exchange their expertise and determine student needs in defined areas of study. Only then can those faculty in particular disciplines reconceive of their courses from a multi-perspective base and make write-to-learn aids an integral part of their course designs.

There are other models of these seminars, which I will turn to later, and there are even programs with no faculty training at all. However, those programs that neglect faculty seminars have not lasted (Griffin, 1984).

At Robert Morris College, we urge our faculty to take advantage of the multiple functions of writing for more than its social, communicative one. Our program objectives are 1) to engage faculty across our academic departments, as they re-envision their courses, to integrate fully write-to-learn activities; 2) to facilitate our faculty's collaboration with research faculty at Carnegie-Mellon University in their course designs and in their program evaluation; 3) to insist that our faculty provide courses in every discipline through which students use writing in multiple and various ways--especially to improve efficiency and accuracy in thinking in their respective disciplines.

In permanent writing-across-the-curriculum programs, where the main goal is to help students become more substantive, precise thinkers and learners in a particular discipline, the work must begin with a self-conscious faculty who has the pedagogy to help their students make that happen. Teaching faculty who can work cooperatively with researchers are in an optimum position to establish appropriate write-to-learn activities as an integral part of their courses before they begin to implement writing-across the-curriculum techniques in their classes. Just as program activities must be planned before their implementation into the curriculum, so must evaluation designs be part of the initial planning process. Just as planning the goals of the program activities is a must, so it goes for planning the goals of the evaluation.

If there is an analogy for Achilles' Heel in writing-across-the-curriculum programs, it is in evaluation, or more fundamentally, in evaluation design. Even the most successful writing-across-the-curriculum administrators have discovered this to be a shortcoming in their own programs. Art Young, for example, who has the longest running if not the most successful writing-across-the-curriculum program in the country, maintains that if he were starting Michigan Tech's program now, he would spend more time planning the evaluation at the outset (A. Young, 1985). There are assumptions to be considered for evaluation just as there are assumptions for program activities. As Richard Young would say it, there are paradigms which underlie our disciplines, and these paradigms govern our conduct in evaluation as well as in teaching our disciplines (R. E. Young, 1978).

No one measure in an evaluation design can yield sufficient evidence on which to base the success or failure of a writing program. If the goal of the writing program administration is to prove the worth of a program and the need for its continued existence, then the means of measurement must satisfy all participants intrinsic to the program (namely teachers and students) as well as all administrators, advisory boards, funding agencies, and others extrinsic to the program. In short, multiple measures of a single, complex phenomenon such as a writing program are likely to yield the kind of substantive conclusions and verification which are worthy of the program.

Planning evaluation designs is a complex activity, which requires verifiable and reliable results. There are powerful strategies which we can call on for creating such evaluation designs: First, we can satisfy the various "need-to-know"

questions posed by teachers, students, administrators, advisory boards, funding agencies, and others interested in the impact of the program by consulting sources like Witte and Faigley (1983) for determining contexts for evaluation and by conducting structured investigation procedures to insure comprehensive evaluation like those posed by Davis, Scriven and Thomas (1981). These can help us identify multiple kinds of evaluation and a number of relevant measures.

We can help ourselves further by providing a calendar and matrix of evaluation activities. In this way the evaluation plan can be put into operation at the appropriate times during the implementation of the program (See Calendar of Evaluation and Evaluation Matrix). The multiple and varied indicators of success or failure exhibited in the matrix are far more powerful and persuasive than single measures. The preponderance of evidence derived from such a comprehensive evaluation establishes the need to continue the program beyond an initial implementation phase.

The second set of strategies we can call upon after using these questioning procedures and designing an evaluation matrix is the establishment of relationships among and between the various components of evaluation and assessment. Witte and Faigley argue that developing a context for the various measures helps us see important connections among them for both qualitative and quantitative analyses (1983). For example, what kinds of connections exist between various surveys, protocol research, student writing, and so on--all of which must be analyzed in qualitative and quantitative terms.

My remarks about planning both evaluation designs and program activities are derived from one and the same premise:

The way to insure a comprehensive evaluation and effective activities yielding reliable and persuasive results is to plan for them. Besides forcing us to re-examine our theoretical assumptions about our writing programs, planning helps us account for the reasons why we use experimental and other design models in the act of evaluation rhetoric. Once we decide whom else besides ourselves we must convince, the choices we make about the kinds of program activities and evaluation measures are dependent on our intended audiences.

PROPOSING

The next cycle of 4P's is proposing. It too, like planning, is recursive because after the initial proposal by the institution's director or grant writer is submitted to internal and external sources of funding, every institution finds itself proposing still more ways to extend, expand, or continue what was begun.

The most permanent way to begin a program from this perspective of proposing is to find external funding. The reality of an externally funded program, particularly if the monies are allocated for the support of the faculty who are front-line implementers, can drive the program to the point of institutionalization. External funding not only makes the administration of the institution happy but fortuitously encourages that administration to commit their own dollars when they see outside agencies willing to invest in their institution's intellectual life.

Again, if we look to those healthy writing-across-the-curriculum programs that have not only survived but continue to expand and grow, we see that the

WABO EVALUATION ACTIVITIES CALENDAR

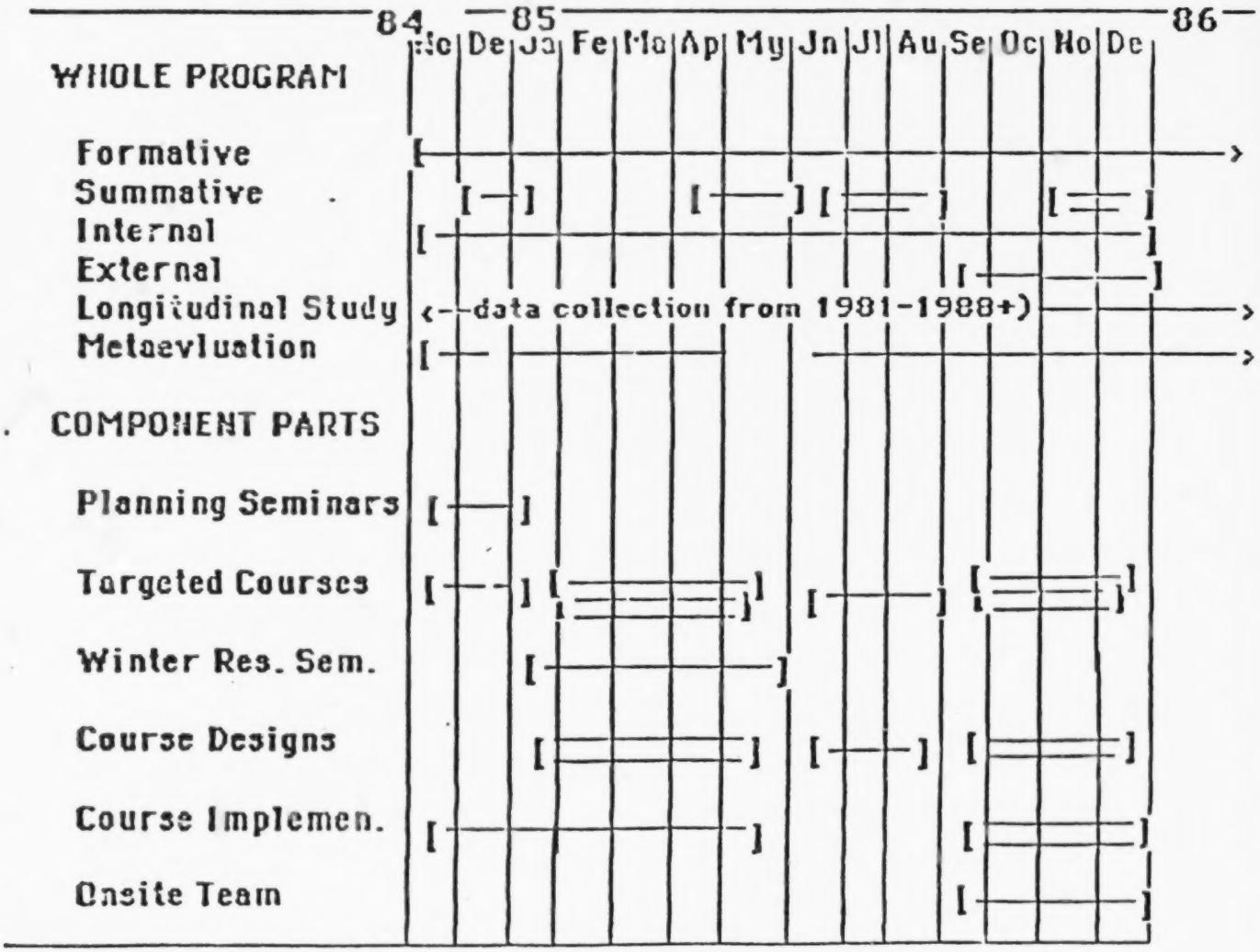

CHART OF WADD EVALUATION DESIGN

KINDS OF EVALUATION / COMPONENTS TO BE EVALUATED	FORMATIVE — INTERNAL	SUMMATIVE — INTERNAL	EXTERNAL	METAEVALUATION
PLANNING SEMINARS	-writing responses by faculty participants	-faculty participant survey	XXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXX
TARGETED COURSES	-evaluation by individual faculty -participant writing activities throughout pre and post course designs	-pre and post course designs -evaluations by individual faculty	-on-site WPA evaluation visit	-evaluation designs by individual faculty participants -evaluation design of whole program
WRITE TO LEARN ACTIVITIES IN TARGETED COURSES	-taxonomy of small genres -faculty participant surveys -student participant surveys	-final copy of taxonomy -faculty participant surveys -student participant surveys	-on-site WPA evaluation team visit -protocol interviews -protocol analysis	-protocol analysis -- experimental design
WINTER RESEARCH SEMINARS	-participants' written responses to weekly agendas and writing materials	-faculty participant surveys	-on-site WPA evaluation team visit (analysis of data by external team)	-analysis and conclusions drawn from pre and post faculty surveys -designs by faculty
IMPACT OF WRITE TO LEARN ACTIVITIES IN TARGETED COURSES	-pre-implementation information faculty surveys administrative surveys student surveys	-post course design info: faculty surveys student surveys administrative surveys	-design of sets of writing activities performed by students pre and post implementation of targeted courses	-coding schemes and analysis of pre and post implementation protocols
IMPLEMENTATION OF TARGETED COURSES	-class visits -protocols -interviews	-analysis of class visits, protocols, and interviews	-on-site WPA team -protocol analysis	-design of protocol analysis
POSSIBILITY OF LONG TERM IMPACT OF WADD	XXXXXXXXXXXXXXXXXXX	-analysis of: administrative surveys faculty surveys student surveys	-on-site WPA team recommendations	-longitudinal case studies

WPA's 11

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successful ones found initial funding from external sources and returned with more external funds to expand the activities and research of the start-up programs. I am thinking here particularly of Elaine Maimon's program at Beaver College and Art Young's program at Michigan Technological University--the former initially funded by The National Endowment for the Humanities and the latter by General Motors Corporation.

Proposing is far more complex than my brief treatment suggests. However, successful proposing bears some recognizable earmarks. For example, an institution that makes intelligent proposals for funding, particularly external funding, has defined a distinguishing feature of its program. The process of discovering this feature takes place within the institution's context of its purpose for existence and through its invention of a particular writing-across-the-curriculum program that satisfies its institutional needs. What the program administrator or grant writer needs to do is capitalize on the distinguishing trait to attract funds.

While proposing refers primarily to budgetary matters, affectionately known as funding the program, another aspect of proposing is politicking. And I mean that in a wholesome sense, if politics can be wholesome. That is, those committed to seeing a program come alive and continue to grow are committed to proposing continually new ways to make it happen as well as be willing to adjust what already has transpired. Proposing therefore exists in a larger context than in external grant competition. Proposing refers to all the substantive suggestions in the spirit of public relations and good will that participants and support people associated with the program can muster.

PREPARING

Preparing, the third of the recursive cycles in the 4P's, requires orienting all people at the institution for the program before, during, and after implementation. Preparing is crucial to the program's effectiveness. After initial outside speakers visit a campus in the process of planning their writing-across-the-curriculum programs (a practice used by most fledgling programs), the internal preparation must begin most comprehensively and intensively with the faculty. The nature of that preparation for faculty is largely dependent on the project administration's ability to look to and beyond English faculty in making writing across the curriculum happen.

Here it is necessary to look at several models of faculty seminars as well as the alternative of having no faculty seminars at all. The range of models moves from one end of the spectrum where the typical seminars are for English faculty who go about as crusaders, encouraging teachers in other disciplines to share their burden of teaching writing. This model of faculty seminars undermines not only the work of teachers in other disciplines but the work of the English department, for it trivializes the teaching of writing and encourages "correctness" as the guiding principle of writing across the curriculum. This principle of correctness rather than one of write-to-learn becomes the driving force. This model also, by the way, gradually builds resentment among non-English faculty who interpret this as having to do the English department's job as well as their own (Knoblauch and Brannon, 1983).

An enlightened step away from this model on the spectrum is Elaine Maimon's at Beaver College. While this program clearly maintains English faculty as resource, her English faculty serve

as "tag-team" partners of non-English faculty in all the arts and sciences of Beaver College, a liberal arts college. There, all faculty work toward better writing through both expressive and transactional writing assignments (Britton, 1970) even though the English department predominantly bears the burden of teaching the freshman writing courses designed to insist on writing in and about other disciplines in the arts and sciences.

At the other end of the spectrum is Art Young's model of faculty seminars at Michigan Technological University. There faculty in all disciplines perform genuinely collaborative work to maintain a now ten-year old program whose purpose is to use writing to learn. As Art Young says in Language Connections,

> Writing to learn is different. We write to ourselves as well as talk with others to objectify our perceptions of reality; the primary function of this "expressive" language is not to communicate, but to order and represent experience to our own understanding. In this sense language provides us with a unique way of knowing and becomes a tool for discovering, for shaping meaning, and for reaching understanding. For many writers this kind of speculative writing takes place in notebooks and journals; often it is first-draft writing, necessary before more formal, finished writing can be done....Language skills deserve more conscious attention from teachers in all academic disciplines,...and teachers who recognize the powerful role of these skills can help students increase their learning ability, improve their communication skills, and enhance their cognitive and emotional growth (Fulwiler & Young, 82). . . .

No matter which model of faculty seminars is embraced by any institution, the key to successful seminars is that they are extended over a period of time, offer intensive work to the participating faculty, and address the specific disciplinary goals of each participating faculty--in every discipline.

Of course, there is always the alternative of no faculty seminars at all. But even in these situations, there is a need to enlist others such as students or other staff members across

disciplines. Tori Haring-Smith at Brown University, for example, has developed a Writing Fellows Program comprised of selected student peer readers across disciplines. While Haring-Smith does not conduct seminars for the faculty at Brown, she asks the faculty to suggest writing fellows whom she then trains to do the work of writing across the curriculum.

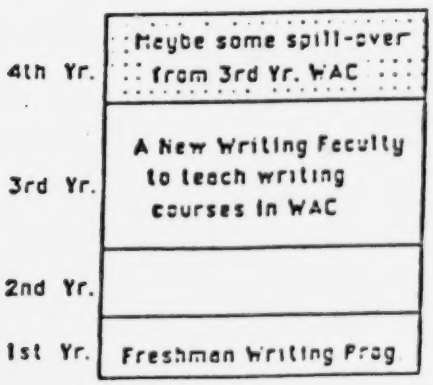
The question of faculty seminars, whether they are to be or not be, determines the degree of penetration that write-to-learn will have in the curriculum as does the nature of the seminars for the front-line implementers. Do faculty or students receive a set of possible write-to-learn techniques to determine which they will use and which they will not? Or do faculty look at the structure of their course designs to determine if and what write-to-learn activities will help students better achieve their course goals? The answer to the question of faculty seminars can make or break a program because these answers publicly avow the depth, responsibility, and authority of writing across the curriculum.

PROTOTYPING

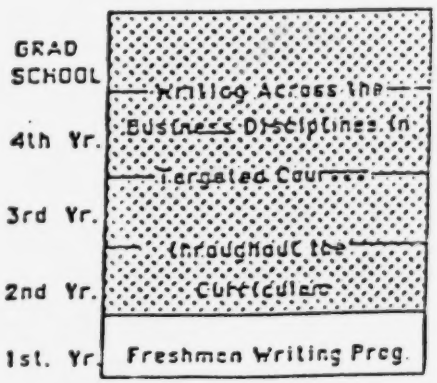
Prototyping, the fourth cycle in the 4P's, sets a program apart from others. It is what constitutes model programs and insures their long-term maintenance. If any aspect of writing across the curriculum is replicable, the value of such a program has far-reaching effects beyond the interest of its home institution. The institution in turn has a vested interest in seeing the program's continuation and development not only for its own sake but also for its contribution to the state of the art. There are representative prototypes of parts if not of whole programs that have influenced program development elsewhere.

By way of contrast, if one examines the Robert Morris College model in relation to, say, the University of Texas model, it is easy to see the distinctions between the two:

University of Texas Model


4th Yr.
Maybe some spill-over from 3rd Yr. WAC
3rd Yr.
A New Writing Faculty to teach writing courses in WAC
2nd Yr.
1st Yr.
Freshmen Writing Prog

Robert Morris College Model



Instead of hiring and trying to maintain a wr[illegible]ing faculty whose sole purpose is to <u>add on</u> a writing dimension to the curriculum, we have required faculty in all disciplines to integrate <u>fully the</u> write-to-learn strategies that will help their students become more proficient thinkers in their respective courses. Thus, the attack on student literacy problems is launched by every academic department by each faculty in discipline-specific ways. In practical terms, our model not only saves the institution the initial start-up cost of hiring a separate writing faculty, but the model is more likely to insure long-term continuation of the program. And, perhaps most importantly, the model requires faculty across the curriculum to insert in their courses

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appropriate write-to-learn strategies as indispensable thinking tools.

It is no accident that in the Robert Morris College program we have initially focused on faculty by working through a semester-long series of faculty seminars (those in the first cycle were conducted by Dr. Richard E. Young and myself in Spring, 1985). There the first cycle of faculty learned the basic research principles offered through the writing education research; they applied those principles to the design of their exemplary courses in our version of a college-wide writing program, "Writing Across the Business Disciplines." Specifically, faculty restated their course goals for their business courses and then developed numerous and varied writing activities that helped students achieve these goals.

If we examine the outcomes of our program, based on the data from our multiple-measure evaluation procedures, there is noticeable emphasis on student learning, faculty development, and evaluation designs:

1. Participating faculty change their conception, design, and use of writing in specific courses to help students achieve course goals.

2. Student writing and learning improve when students use fully integrated write-to-learn assignments.

3. Both student and faculty attitudes toward writing accommodate the multiple and various purposes of writing.

4. Faculty are developing new writing assignments that answer their discipline-specific goals and serve as useful interveners in the student learning process (one product already developed is a taxonomy of over 180 write-to-learn assignments).

5. The multiple-measure evaluation design is a model we can both extend for ourselves and offer to other institutions to emulate as they

establish their versions of writing-across-the-curriculum programs and seek an evaluation mechanism to verify their results.

Our multiple-measure evaluation provides convincing evidence to faculty, many of whom are still strongly wedded to traditional methods of writing instruction, that our model of writing across the curriculum is authoritative and credible. Moreover, this evaluation evidence gives administrators the incentive and rationale to continue their programs. At Robert Morris College this multiple-measure evaluation procedure helped us strengthen the program itself and gave our administration the incentive to fund the continuation of the project.

Finally, we believe we have two distinctive features in our evaluation research: First, we are applying a method of data collection and analysis through protocol research (the subject for another essay). And second, while we are including well-known methods of experimental designs in evaluation (i.e., split samples of control and experimental groups of faculty and students), we are using this in context of a multiple-measure approach. In other words, we have a wealth of evaluation results to offer the skeptics. While the extent of our contributions to evaluation research of writing-across-the-curriculum programs must undergo still more scrutiny, we are welcoming such activity as our contribution to a long-term effort in evaluation research.

CONCLUSION

The four cycles of planning, proposing, preparing, and prototyping (the 4P's) are essential features of

writing-across-the-curriculum programs that last. From my own experience, I can only say that these cycles can not occur too often. In fact, I have heard directors as well as evaluators of successful programs say that too often they do not occur at all. Art Young reports that only 10% of the scarcely 250 programs operating in the country today are predicted to survive because most programs ignore the 4P's. Those of us eager to see writing-across-the-curriculum programs last must address the real problem of survival: How can we prevent more shipwrecks?

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